

IT ROC Partner Review

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IT federation

- 1 country
- 5 Partners:
 - INFN
 - ENEA
 - SPACI-UNILE
 - SPACI-UNINA
 - SPACI-UNICAL
- 5 more RCs:
 - Istituto Tecnologie Biomediche – CNR/BARI (LIBI Project)
 - PERUGIA University
 - Istituto Linguistica Computazionale CNR-PISA
 - Scuola Normale Superiore – PISA
 - ESA-ESRIN



IT federation resources:

	CPUs	
	provided	committed
INFN	about 4350	2000
ENEA	14 linux (+ 96 AIX under certification)	152
SPACI	135	128
Total	about 4500	2280

- **STORAGE:** 950 TB Disk Storage (and 240 more TB are being allocated)
- **Tape Storage:** 734 TB

GridICE

the eyes of the Grid

grid-logo.gif

70x50

change with the logo of the Grid being monitored

Geo view

Site view

VO view

Help

About

GridICE >> Site:ALL

General

Gris

Host

Job

Charts

Network

XML

Overview

Computing

Management

Downtime

Computing Resources

Storage Resources

Site ▼

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Distributed Grid Accounting System (DGAS) is used for accounting on the italian production grid:

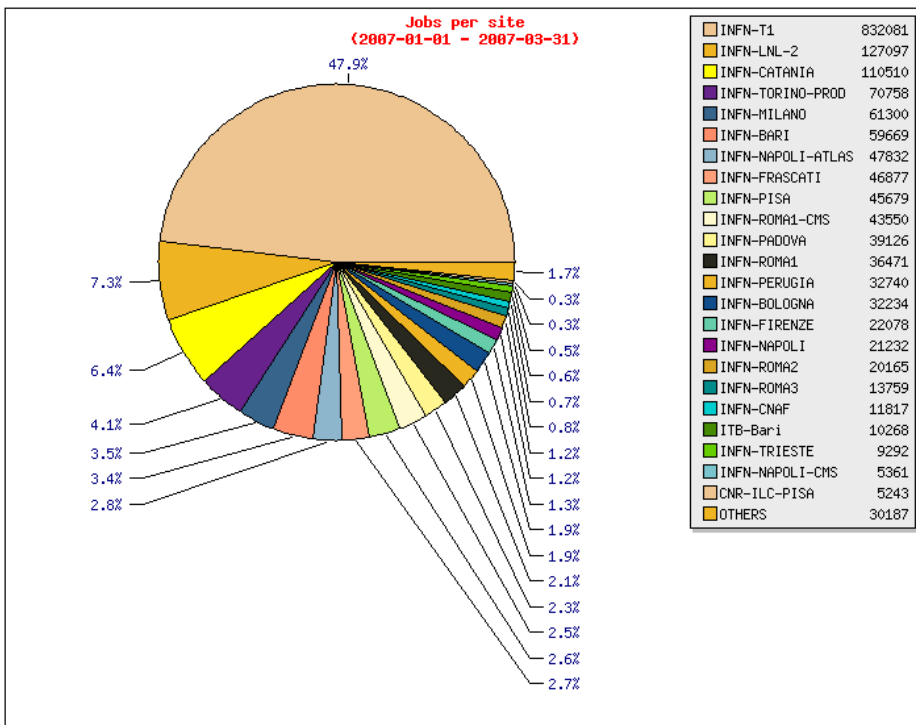
- Data (resource usage records) are collected by DGAS and stored in appropriate databases called Home Location Registers (HLRs); currently 12 HLR servers are active;
- The validation of the DGAS accounting data (by cross-checking the job records in the HLRs and in the LRMS log files) is currently ongoing;
- As soon as the validation of a site is complete data are sent to the GOCDB (through the Dgas2Apel tool: the Apel publisher is used to store the data into R-GMA).

The graphs reported in the following slides have been done by means of a web tool (HLRmon) that is currently under development. Access to the data is restricted to authorized people according to their role (user, site manager, VO manager, grid manager).

For some sites (Tier-1, INFN-LNL, INFN-Roma1 and the small sites) validation has not been completed yet. A fix for a DGAS bug (related to the rotation of the LSF log files) discovered during the validation activity is under certification.

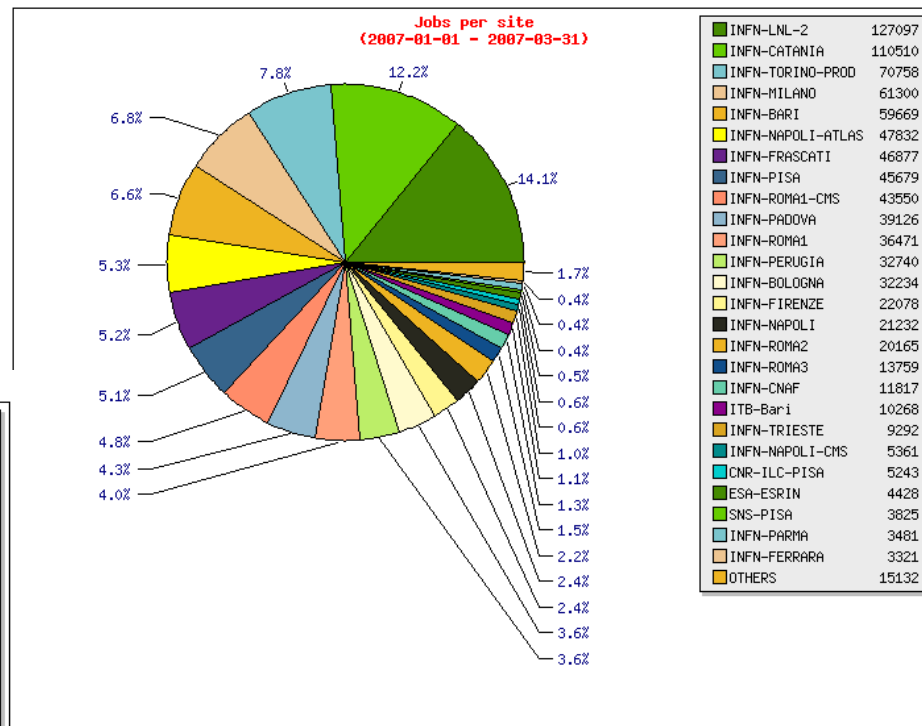
HLRmon reports (jan-mar 2007)

Jobs per site (T1 included)



Jobs per Site (total=1735326)

12 lower entries are aggregated as 'OTHERS' up to 1.74% of total

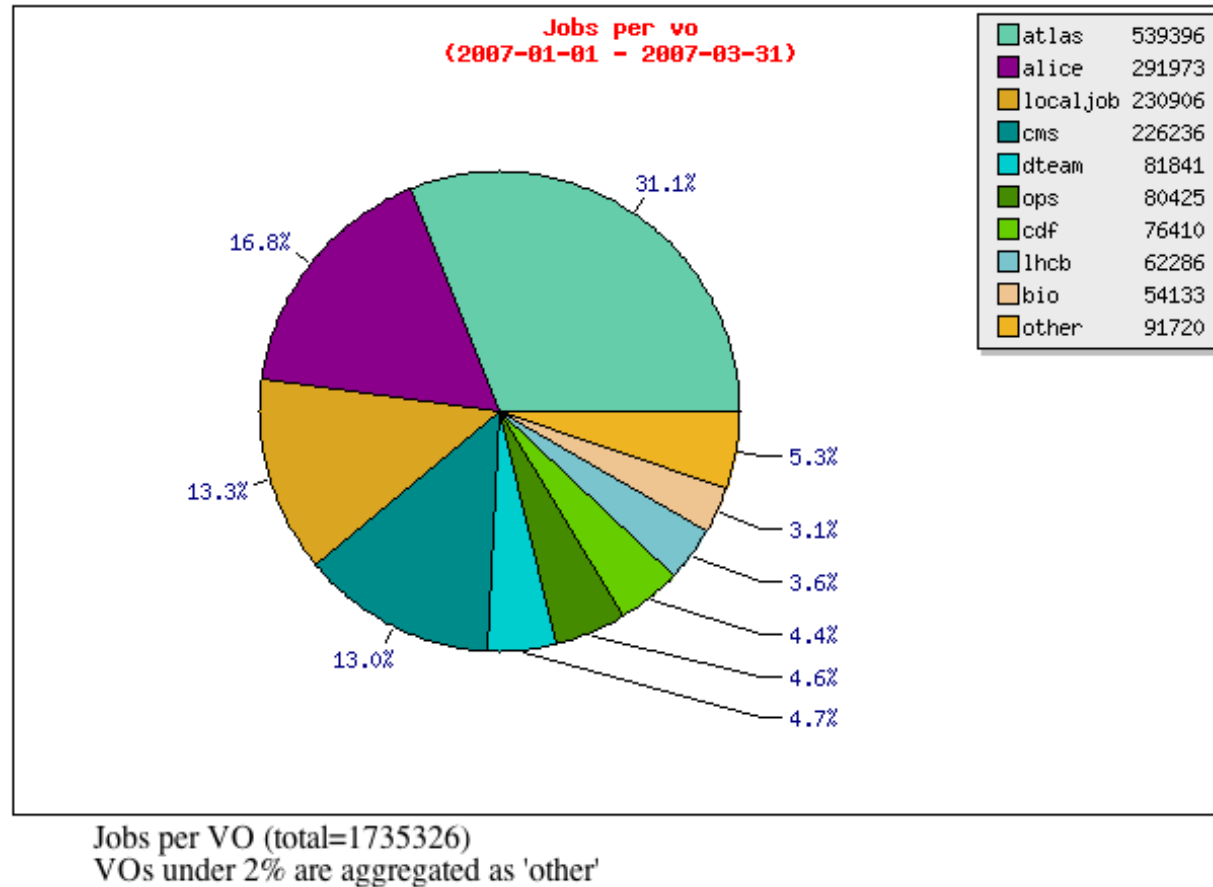


Jobs per Site (total=903245)

lower entries are aggregated as 'OTHERS' up to 1.68% of total

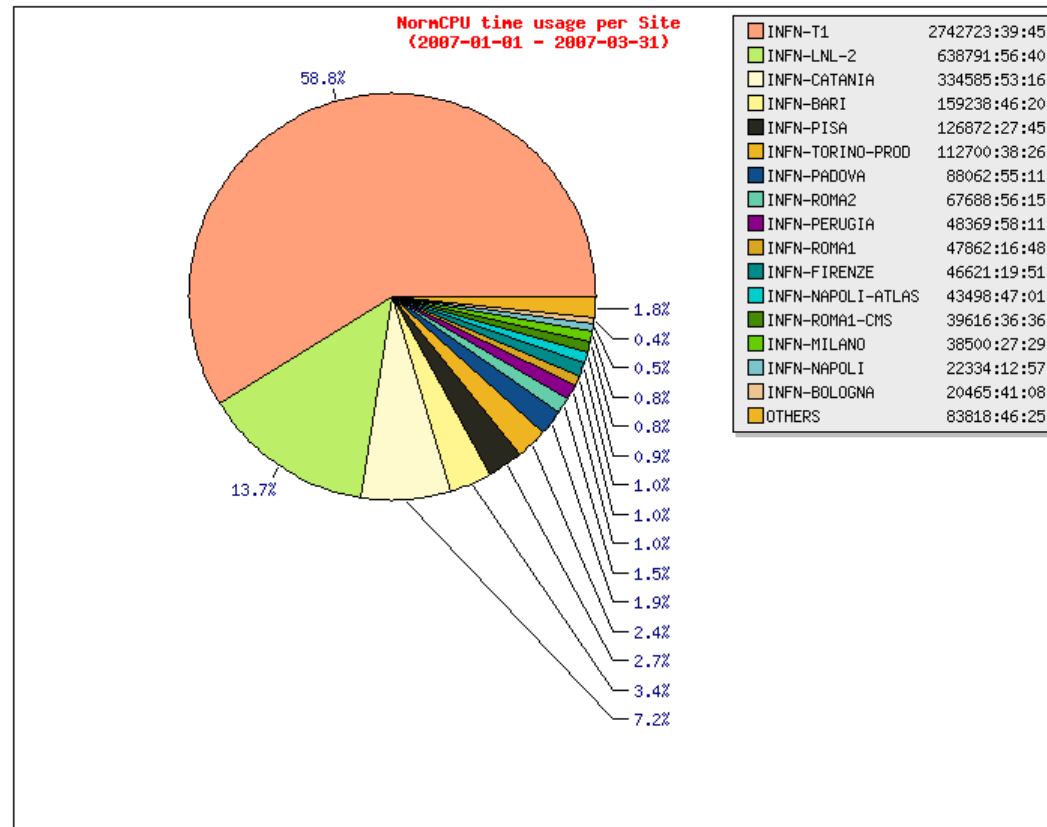
Jobs per site (T1 excluded)

HLRmon reports (jan-mar 2007)



Jobs per VO (T1 included)

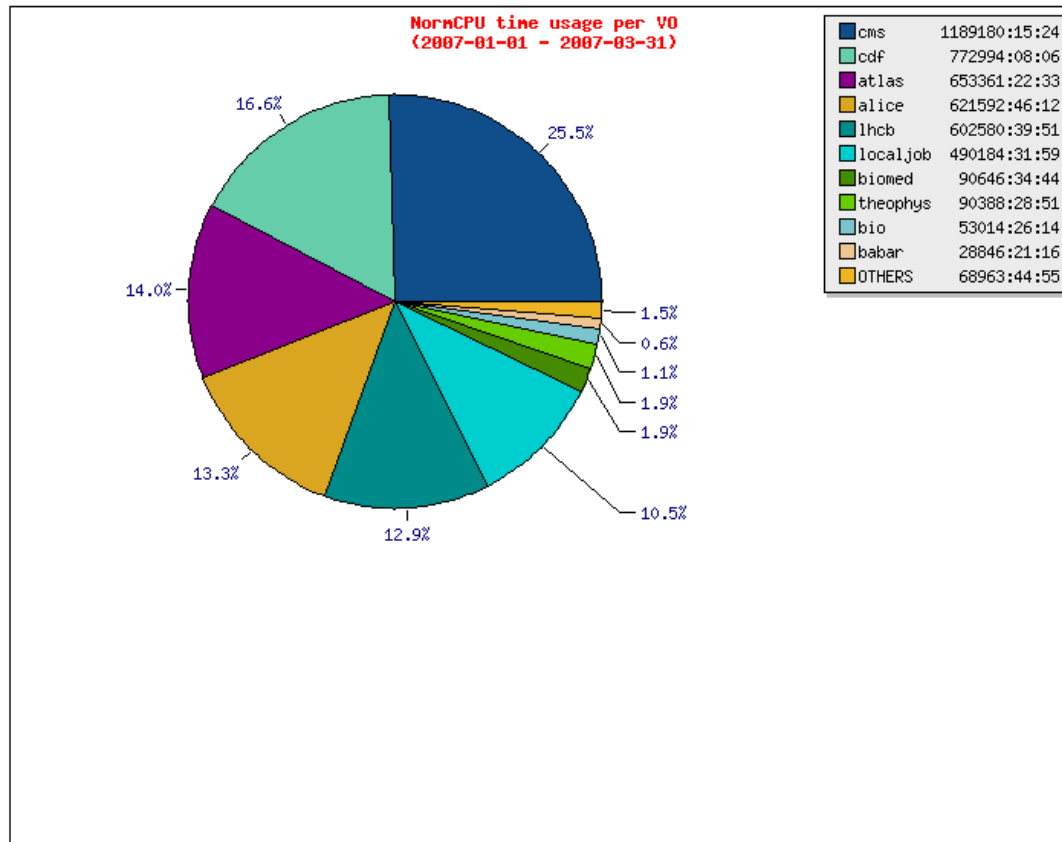
HLRmon reports (jan-mar 2007)



NormCPU time usage per Site (total=4661753:20:10hh)
which corresponds to 539yy,6mm,19dd 17h,20min,10sec
19 lower entries are aggregated as 'OTHERS' up to 1.80% of total

Norm CPU per site (T1 included)

HLRmon reports (jan-mar 2007)

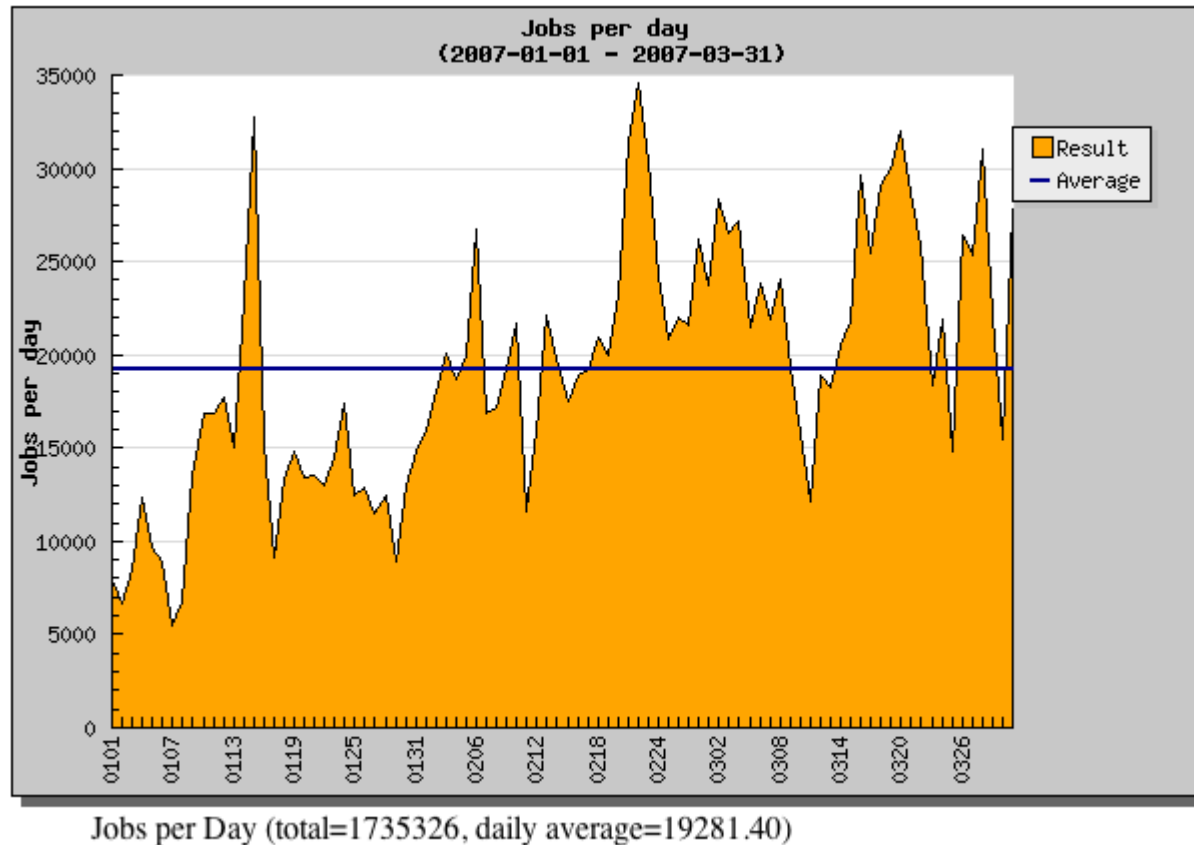


NormCPU time usage per VO (total=4661753:20:10hh)
which corresponds to 539yy,6mm,19dd 17h,20min,10sec
35 lower entries are aggregated as 'OTHERS' up to 1.48% of total

bio + biomed VOs have used
3% of the total CPU time
(activity is almost constant)

Norm CPU per VO (T1 included)

HLRmon reports (jan-mar 2007)



Jobs per day (T1 included)

WBS summary

Delivered - see the sheet called 'Parameters' for the number of hours per month and other information															
Partner	Federation	SA1	SA1.1	SA1.2	SA1.3	SA1.4	SA1.5	SA1.6	SA1.7	SA1.8	SA1.9	SA1.10	SA1.A	Total	
ENEA	IT	15	0	0	0	0	0	0	0	0	0	0	4	18	
INFN	IT	58	42	55	246	7	101	24	13	11	1	0	66	624	
UNICAL	IT	0	0	0	18	0	0	0	0	0	0	0	2	20	
UNILE	IT	0	0	0	9	0	9	0	0	0	0	0	0	19	
UNINA	IT	0	0	0	0	0	20	0	0	0	0	0	0	20	
UR CNRS	IT	0	0	0	7	38	0	0	0	0	0	0	6	51	752
Plan - man-months															
Partner	Federation	TSA1.1	TSA1.2	TSA1.3	TSA1.4	TSA1.5	TSA1.6	TSA1.7	TSA1.8	TSA1.9	TSA1.10	TSA1.A			
INFN	IT	72	72	336	24	144	24	12	12	12	0	0	708		
ENEA	IT	0	0	9	0	12	0	0	0	0	0	0	21		
SPACE-UNICAL	IT	0	0	0	0	20	0	0	0	0	0	0	20		
SPACI-UNILE	IT	0	0	10	0	10	0	0	0	0	0	0	20		
SPACI-UNINA	IT	0	0	20	0	0	0	0	0	0	0	0	20	789	

Please note:

- an amendment to the DoW (approved in november 2006) reduces INFN SA1 contribution to 636 PMs (was 708)
- in this table 1 PM corresponds to 140 working hours while in italy the standard monthly working time corresponds to 130 (in PartA document, table1, 130 has been used)

TASK (PM for 1Y)	INFN provided	INFN expected	ENEA provided	ENEA expected	UNILE provided	UNILE expected	UNINA provided	UNINA expected	UNICAL provided	UNICAL expected	TOTAL FED provided 1Y	TOTAL FED expected 1Y	TOTAL FED expected 2Y
SA1.1	21.7										21.7		
SA1.1.1	7.9	6.0									7.9	6.0	12.0
SA1.1.2	15.7	30.0									15.7	30.0	60.0
SA1.1. TOT	45.3	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.3	36.0	72.0
SA1.2	8.0										8.0		
SA1.2.1	29.5	30.0									29.5	36.0	72.0
SA1.2 TOT	37.5	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5	36.0	72.0
SA1.3	0.8		1.3								2.1		
SA1.3.1	39.2	36.0		4.5	5.0	5.0	0.0	10.0	9.8	10.0	54.0	55.5	111.0
SA1.3.2	19.1	27.0									19.1	36.0	72.0
SA1.3.3	22.3	24.0									22.3	24.0	48.0
SA1.3.4	20.4	30.0									20.4	36.0	72.0
SA1.3.5	35.0	36.0									35.0	36.0	72.0
SA1.3 TOT	136.9	153.0	1.3	4.5	5.0	5.0	0.0	10.0	9.8	10.0	153.0	187.5	375.0
SA1.4	0.1										0.1		
SA1.4.1	3.8	12.0									3.8	12.0	24.0
SA1.4 TOT	3.9	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	12.0	24.0
SA1.5	2.4										2.4		
SA1.5.2	10.6	30.0									10.6	36.0	72.0
SA1.5.3	40.9	12.0		6.0	5.0	5.0	11.0	0.0			56.9	33.0	66.0
SA1.5.4	0.8	9.0									0.8	12.0	24.0
SA1.5.5	2.1	6.0									2.1	12.0	24.0
SA1.5 TOT	56.7	57.0	0.0	6.0	5.0	5.0	11.0	0.0	0.0	0.0	72.7	93.0	186.0
SA1.6	0.6										0.6		
SA1.6.2	13.1	12.0									13.1	12.0	24.0
SA1.6 TOT	13.7	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	12.0	24.0
SA1.7.1	6.8	6.0									6.8	6.0	12.0
SA1.7 TOT	6.8	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	6.0	12.0
SA1.8.1	6.2	6.0									6.2	6.0	12.0
SA1.8 TOT	6.2	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	6.0	12.0
SA1.9.1	0.6	6.0									0.6	6.0	12.0
SA1.9 TOT	0.6	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	6.0	12.0
SA1.A			6.7								6.7		
SA1.A.1	1.2										1.2		
SA1.A.10	1.8										1.8		
SA1.A.2	25.6								1.1		26.7		
SA1.A.3	2.0		1.2								3.2		
SA1.A.4	0.1										0.1		
SA1.A.7	2.8										2.8		
SA1.A.8	2.2		0.1								2.3		
SA1.A.10			0.8										
SA1.A TOT	35.6	0.0	8.8	0.0	0.0	0.0	0.0	0.0	1.1	0.0	45.5	0.0	0.0
TOTALE SA1	343.1	318.0	10.1	10.5	10.0	10.0	11.0	10.0	10.9	10.0	385.1	394.5	789.0

Small differences between PPT and IT-Federation data should be investigated

Services offered to EGEE and INFN-GRID infrastructures:

- **INFN-CNAF:**
 - 4 RBs
 - 5 BDIIs (1 dedicated to CMS)
 - 1 RB/BDII
 - 6 WMS/LB (1 used by SAM Admin)
 - 1 WMS
 - 1 LB
 - 1 LFC
 - 1 MYPROXY
 - 2 VOMS
 - 2 GRIDICE
 - 1 GSTAT (<http://gstat2.gridops.org/gstat/>)
 - 1 SAM-ADMIN (<https://cic2.gridops.org/samadmin/>)
 - 1 CIC PORTAL (<http://cic2.gridops.org/>)
- **INFN-PADOVA:**
 - 1 RB
 - 1 BDII
 - 1 WMS/LB
 - 1 LFC
- **INFN-CATANIA:**
 - 1 RB
- **INFN-FERRARA:**
 - 1 RB
 - 1 BDII
- **INFN-T1:**
 - 1 FTS
 - 2 LFCs (1 replica of the global one for lhcb VO)
- **INFN-BARI:**
 - 1 WMS/LB

Other Services

13 HLR servers for DGAS accounting:

- T1
- Bari
- Catania (for T2 only)
- Frascati (LNF)
- Milano
- Legnaro (LNL)
- Napoli
- Pisa
- Roma1
- Torino
- Catania (reference for central-southern area sites)
- Padova (reference for central-northern area sites)

- Torino (level 2 HLR)

- **Supported VOs:**

- **12 Regional:**

- argo
 - bio
 - infngrid
 - enea
 - ingv
 - gridit
 - inaf
 - theophys
 - virgo
 - pamela
 - libi
 - egrid

- **20 Global:**

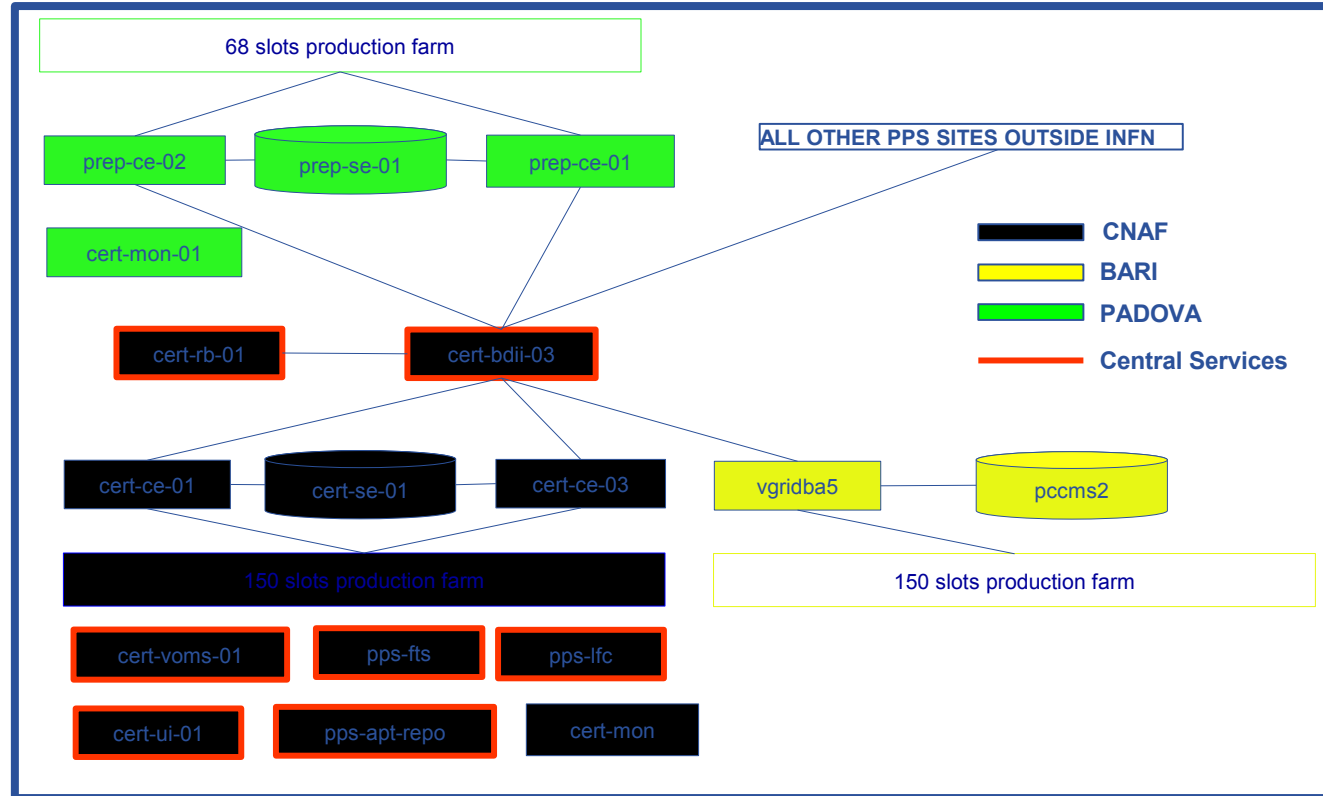
- atlas
 - alice
 - babar
 - biomed
 - cms
 - cyclops
 - dteam
 - esr
 - euchina
 - euindia
 - eumed
 - geant4
 - gear
 - lhcb
 - magic
 - ops
 - zeus
 - cdf
 - compchem
 - planck

• 3 INFN sites:

- CNAF
- PADOVA
- BARI

• 3 Diligent sites:

- CNR
- SNS
- ESRIN



CNAF: 2 CE with access to the production farm, 1 SE, 1 mon box
+ central svcs (VOMS, UI, BDII, WMS, FTS, LFC, APT REPO)

people: *D.Cesini, D.Dongiovanni*

PADOVA: 2 CE with access to the production farm, 1 SE, 1 Mon Box

people: *M.Verlato, S.Bertocco*

BARI: 1 CE with access to the production farm, 1 SE

people: *G.Donvito, R. Gervasoni*

• 3 INFN sites:

- CNAF

[D. Cesini, D. Dongiovani
R. Lops (JRA1)]

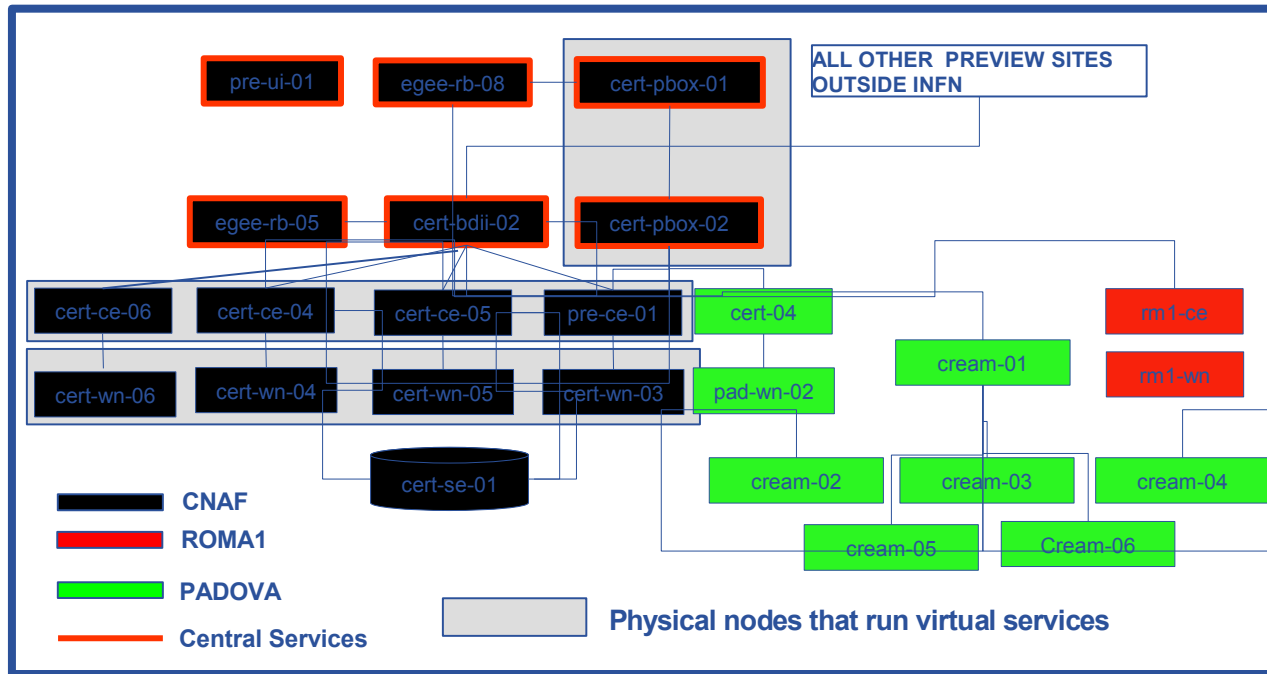
- PADOVA

[M. Sgaravatto (JRA1),
M. Verlato, S. Bertocco]

• ROMA1

(A. Barchiesi)

H/W resources are partly taken from the INFN certification testbed and partly from the jra1 testbed.



Preview services deployed in Italy:

PADOVA: 1 CREAM CE + 5 WN

CNAF: 1 WMS 3.1, 1 BDII, 1 gLiteCE + 1 WN, 1 UI, 1 DPM-SE
(for gpbox) 1 WMS3.1 + 2 gLiteCE + 1 LCG CE + 3 WN + 2 gpbox servers

ROMA1: 1 CE + 1 WN for gpbox tests (to be installed)

Virtual machines used at cnafr to optimize h/w resources

Participation to other activities within the Project (1Y):

- **INFN:**
 - **JRA1:** 241.2 PM
 - **SA3:** 29.7 PM
 - **NA2:** 11.1 PM
 - **NA3:** 29.9 PM
 - **NA4:** 191.5 PM
 - **NA5:** 14.1 PM

- **People**

- G. Bracco 40%, S.Migliori 20%, S. Podda 20%, A. Quintiliani 10%
- C. Scio (Consultancy contract for the support in the integration with ENEA-GRID), A. Santoro (ENEA Fellowship, from 2007/03)

- **TSA1.3**

- GRID Operation and Support: G. Bracco, C. Sciò, A. Santoro, S. Migliori, S.Podda

- **TSA1.5**

- VO, application and user support: G. Bracco, C.Sciò, S. Podda

- **TSA1.A**

- EGEE Conference and Partner related Task: S. Migliori, A. Quintiliani, G. Bracco

- **Activity**

- Integration of ENEA-GRID resources into EGEE-II Infrastructure using the “Gateway” approach to provide access to AIX platform. The approach can support any of platforms available in ENEA-GRID, based on AFS and LSF.
- Implementation of software components for interoperability with ENEA-GRID: enabling AFS users as gLite pool accounts users by modification to LCMAPS and gssklog packages (support to VOMS X509 extension)
- Operation of ENEA-INFO Site.
- Support to the ENEA Regional VO, Fusion VO, CompChem VO

- **Participation to EGEE Conferences**

- G. Bracco, S. Migliori, EGEE06

- **Difficulties**

- Certification of the AIX access delayed by the late agreement on the OS specification criteria from the client side.

- **Achievements**

- Success in the integration of AIX ENEA-GRID resources; successful tests also for ALTIX, MacOSX, IRIX.
- Documentation for the Gateway approach and the implemented components:
 - **EGEE Technical Note EGEE-TR-2006-006 "AFS Pool Account Users - GSSKLOG and LCMAPS extension to support AFS users as EGEE pool account users"** presented also at EGEE06
 - **AFS Best Practice Workshop 2006, University of Michigan, Ann Arbor, 12-16/6/2006 "Implementing GRID interoperability"**
 - **V° INFNGrid Workshop , Padova 2006, "The ENEA-EGEE site: access to not standard platforms"**

- Are there any concerns [things to know!]?
 - The integration of non standard platforms in EGEE infrastructure has been a challenge due to the middle-ware unavailability and the ENEA gateway approach has provided a working solution on short time scales and in the limit of an affordable effort inside SA1 activity
 - The number of AIX cpus presently under certification (96) can be easily increased, as 400 AIX cpus are available and adding more cpus requires only the redefinition of the EGEE dedicated queues.
 - The attribution of the performed activities in a proper category inside the Time Sheet tool has been sometimes cumbersome: Time Sheet details are not always precise.
- Are there any problems or issues [some action required]?
 - The availability of non standard platform in the production GRID has risen a minor issue in relation to the platform identification in the user request.
 - Having identified the issue, a solution can surely be found to provide the EGEE user with a friendly choice between the available platforms.

Involved people:

- **SPACI-UNILE:**

- Sandro Fiore (funded, 6PM)
- Osvaldo Marra (unfunded, 4PM)

- **SPACI-UNINA:**

- Vito Patrino (funded, 8PM)
- Marco Lapegna (unfunded, 2PM)

- **SPACI-UNICAL:**

- Francesco Principe (2,4PM funded, 0,6PM unfunded)
- Adamo Bosco (funded 4PM)
- Marcelo Pasin (funded, 3PM)
- Lucio Grandinetti (0,15PM funded, 0,35PM unfunded)

SA1 1.3.1

- ROC shifts within Central Management Team, ticket resolution, site certification, site monitoring, etc.
- Support for IA64: by email, website, IT-ROC
- Support to IT-ROC concerning accounting and monitoring at the local site
- Support for site management and integration issues related with batch systems, fabric management (quattor, yaim, etc), and storage systems
- Website for EGEE middleware on IA64 (information / news / support / documentation / download of automatic procedures)
- Update of PBS (pbs_server & pbs_mom) installed on the site farm (starting from source code, we compiled and tested pbs on IA64)

SA1 1.5.3

- Support for VOs (lhc, egrid, geant, libi, etc.)
- Monitoring of VOs activity on site farm

Other activities

Bugs Report (GridICE on IA64, etc.)

Daily Reports, ROC internal meetings, Workshop attendance (V Infngrid workshop in Padova, 18-21 december 2006)

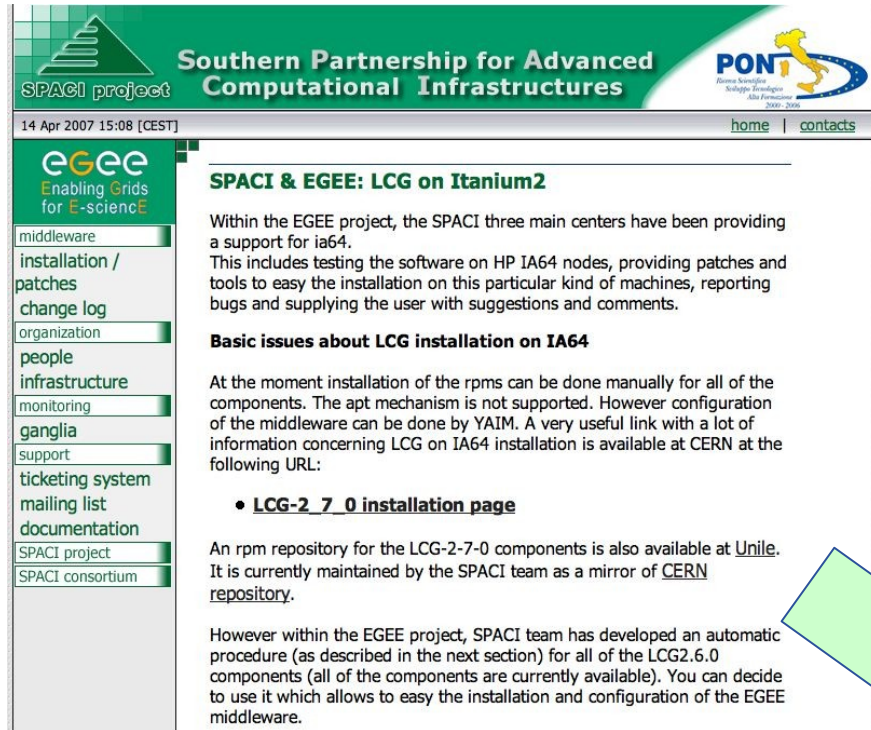
Timesheets and administrative matters

Activities on IA64

LCG-2-7-0 repository for IA64 platform (CERN mirror)

Updating of automatic procedures to ease the LCG-2-7-0 installation/configuration on IA64 platform

Additional tests on HP XC6000 platform to study EGEE middleware compatibility on specific cluster systems with IA64 platform (CE and WN)



Southern Partnership for Advanced Computational Infrastructures

SPACI project

14 Apr 2007 15:08 [CEST]

EGEE
Enabling Grids for E-science

middleware
installation / patches
change log
organization
people
infrastructure
monitoring
ganglia
support
ticketing system
mailing list
documentation
SPACI project
SPACI consortium

SPACI & EGEE: LCG on Itanium2

Within the EGEE project, the SPACI three main centers have been providing a support for ia64. This includes testing the software on HP IA64 nodes, providing patches and tools to easy the installation on this particular kind of machines, reporting bugs and supplying the user with suggestions and comments.

Basic issues about LCG installation on IA64

At the moment installation of the rpms can be done manually for all of the components. The apt mechanism is not supported. However configuration of the middleware can be done by YAIM. A very useful link with a lot of information concerning LCG on IA64 installation is available at CERN at the following URL:

- **LCG-2_7_0 installation page**

An rpm repository for the LCG-2-7-0 components is also available at [Unile](#). It is currently maintained by the SPACI team as a mirror of [CERN repository](#).

However within the EGEE project, SPACI team has developed an automatic procedure (as described in the next section) for all of the LCG2.6.0 components (all of the components are currently available). You can decide to use it which allows to easy the installation and configuration of the EGEE middleware.

LCG Support on IA64 (mailing lists)

Support: grid-prod@sara.unile.it

Italian Central Management Team

Mailing list Cern: lcg-ia64-support

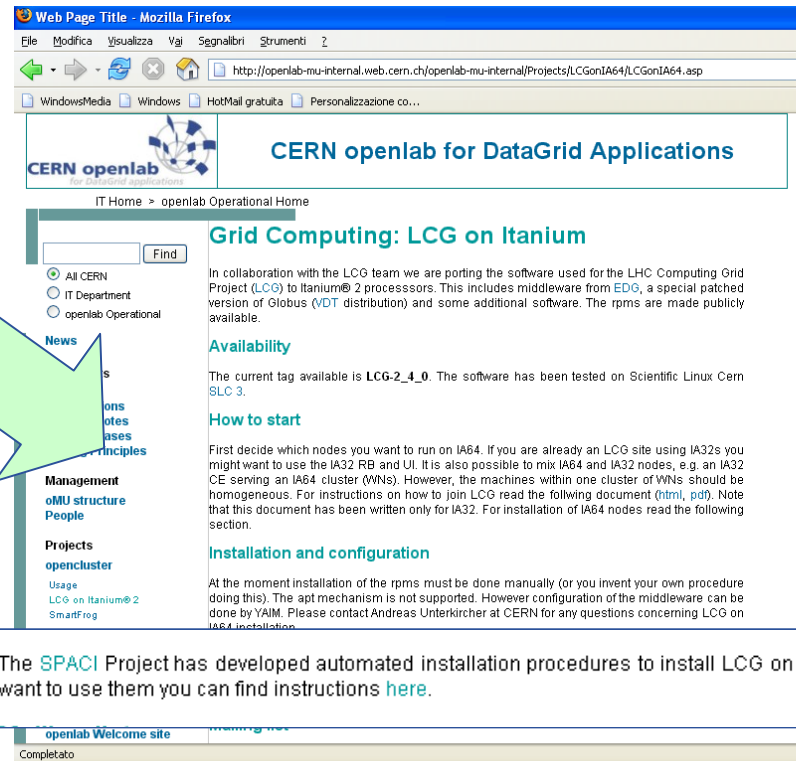


LCG Support on IA64 (websites)

Support: www.spaci.it/egge

SA1 Italy: <http://grid-it.cnaf.infn.it/?sa1italy>

CERN: <http://openlab-mu-internal.web.cern.ch/>



Web Page Title - Mozilla Firefox

File Modifica Visualizza Val Segnalibri Strumenti Z

[http://openlab-mu-internal.web.cern.ch/openlab-mu-internal/Projects/LCGonIA64/LCGonIA64.asp](#)

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for DataGrid applications

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News

Grid Computing: LCG on Itanium

In collaboration with the LCG team we are porting the software used for the LHC Computing Grid Project (LCG) to Itanium® 2 processors. This includes middleware from EDG, a special patched version of Globus (VDT distribution) and some additional software. The rpms are made publicly available.

Availability

The current tag available is **LCG-2_4_0**. The software has been tested on Scientific Linux Cern SLC 3.

How to start

First decide which nodes you want to run on IA64. If you are already an LCG site using IA32s you might want to use the IA32 RB and UI. It is also possible to mix IA64 and IA32 nodes, e.g. an IA32 CE serving an IA64 cluster (WNs). However, the machines within one cluster of WNs should be homogeneous. For instructions on how to join LCG read the following document ([html](#), [pdf](#)). Note that this document has been written only for IA32. For installation of IA64 nodes read the following section.

Installation and configuration

At the moment installation of the rpms must be done manually (or you invent your own procedure doing this). The apt mechanism is not supported. However configuration of the middleware can be done by YAIM. Please contact Andreas Unterkircher at CERN for any questions concerning LCG on IA64 installation.

Management
oMU structure
People

Projects
opencluster
Usage
LCG on Itanium® 2
SmartFrog

openlab Welcome site

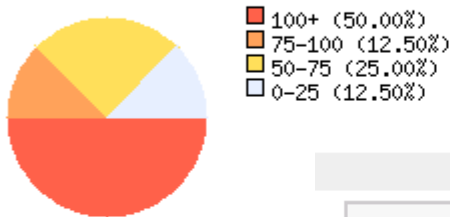
Completato

The **SPACI** Project has developed automated installation procedures to install LCG on IA64. If you want to use them you can find instructions [here](#).

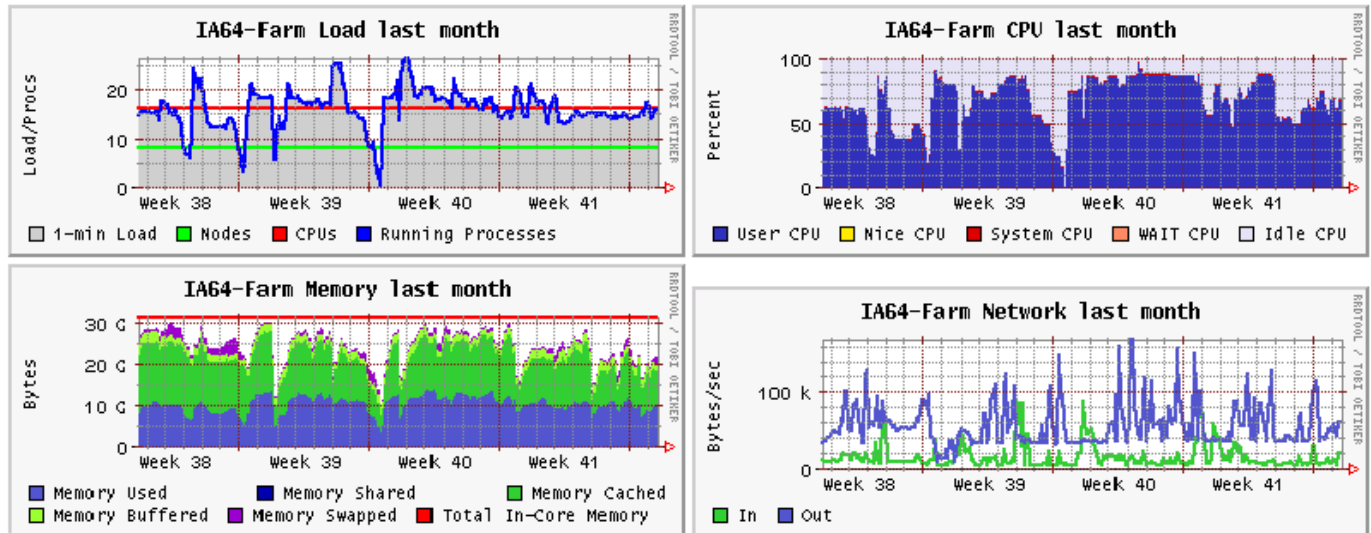
Monitoring SPACI resources

- We additionally provide a web interface to Monitor SPACI resources using Ganglia. http://cact2.unile.it/ganglia_eggee/

Cluster Load Percentages



Overview of IA64-Farm



- **Achievements**

- We provide support for bioinformatics applications ported on grid on IA64 platform in conjunction with the LIBI national project; in particular we ported on grid
 - PatSearch (HTC)
 - MrBayes (HPC)
 - PSI-Blast (HTC)
 - Gromacs - (HPC)
- We are currently testing on LCG-2-7-0 (IA64 platform) some Grid Database Access Services such as OGSA-DAI, GDSE and GRelC (developed by SPACI, <http://grelc.unile.it>)
- Resource monitoring (on IA64 platform) through the deployment of Ganglia sensors (http://cact2.unile.it/ganglia_egee/)

- **Problems**

- Some difficulties related to middleware updates (the procedure is not always trivial because just some updates can be carried out)
- Several manual activities; automatic procedures were developed in EGEE by SPACI team to provide better support along this direction. (for example we had to install PBS scheduler from source distribution and recompile it for the IA64 platform)

- **Issues:**

- On IA64 (itanium2), middleware version is currently LCG-2-7-0. gLite 3.0 is not available yet

- **Anything else:**

- The limited budget does not make possible to fund the hired personnel behind the expected termination of the project. Anyway we can guarantee up to 2-3 unfunded PM of internal staff effort

Family name	Name		FTE	Start	End						
1	Barchiesi	Alessandro	F	1							
2	Bertocco	Sara	F	1	2/10/2006						
3	Bonacorsi	Daniele	UF	0,5							
4	Brunetti	Riccardo	F	1							
5	Caltroni	Andrea	UF	1	01/04/2006	30/04/2006					
6	Campana	Simone	UF	0,5							
7	Carbone	Angelo	UF	0,5	01/10/2006						
8	Carota	Luciana	UF	0,5							
9	Cavalli	Alessandro	F	1							
10	Cesini	Daniele	F	1							
11	Ciampa	Alberto	UF	0,5							
12	Cuscela	Guido	F	0,5							
13	Dal Pra	Stefano	F	1	01/04/2006	14/12/2006					
14	Dalla Fina	Simone	F	1							
15	D'Amato	Maria	UF	0,5	01/04/2006	14/12/2006					
16	Dell'Agnello	Luca	UF	0,5							
17	Donatelli	Massimo	UF	1							
18	Dongiovanni	Danilo	F	1	16/01/2007						
19	Donno	Flavia	UF	0,5	01/07/2006						
20	Donvito	Giacinto	UF	0,4							
21	Doria	Alessandra	UF	0,3							
22	Fantinel	Sergio	F	1	01/04/2006	14/12/2006					
23	Ferrari	Tiziana	UF	0,4	01/04/2006	01/07/2006					
24	Ferraro	Andrea	UF	1	01/04/2006	31/4/2006					
25	Gaido	Luciano	UF	0,5							
26	Galluccio	Francesca	UF	0,3					01/04/2006	30/06/2006	
27	Lo Presti	Giuseppe	UF	0,5							
28	Lo Re	Giuseppe	UF	0,5					01/05/2006		
29	Maggi	Giorgio Pietro	UF	0,25							
30	Magnoni	Luca	F	1							
31	Martinelli	Fabio	UF	0,3							
32	Mastroserio	Paolo	UF	0,2							
33	Mazzoni	Enrico	UF	0,25							
34	Merola	Leonardo	UF	0,25							
35	Michelotto	Michele	UF	0,25							
36	Nebiolo	Federico	F	1							
37	Negri	Guido	F	1					11/01/2007		
38	Pagano	Alfredo	F	1							
39	Paolini	Alessandro	F	1							
40	Patania	Giuseppe	F	0,5							
41	Platania	Giuseppe	UF	0,5							
42	Poleggi	Marco Emilio	UF	0,1					01/06/2006		
43	Retico	Antonio	UF	0,5					01/04/2006	30/09/2006	
44	Salomoni	Davide	UF	0,5							
45	Tortone	Gennaro	UF	0,3							
46	Usai	Alessandro	UF	0,5					01/04/2006	31/07/2006	
47	Vaccarossa	Luca	F	1							
48	Veraldi	Riccardo	UF	0,5							
49	Verlato	Marco	F	1					01/04/2006	30/09/2006	
50	Veronesi	Paolo	F	1							
51	Vistoli	Cristina	UF	0,5							
52	Zani	Stefano	UF	0,5							
53	Zappi	Riccardo	F	1							

TSA1.1: Operate a production and pre-production service

- Management of the italian pre-production service
- Support for the italian pre-production sites
- Management of the italian production grid
- Monitoring of grid services and resources
- Participation to the Service Challenges
- Coordination and support of the deployment of the INFN-GRID m/w release

TSA1.1.1: ROC management

- Participation to the shifts for the monitoring, control and support of the Italian grid resources
- ROC managers meetings and phone conferences
- Coordination of the Italian ROC activities
- Preparation of the weekly ROC report
- IT-ROC phone conferences and meetings
- Coordination of the INFN SC4 activities

TSA1.1.2: Pre-Production service site

- Management of INFN pre-production sites (CNAF, PADOVA and BARI)
- Setup and administration of the pre-production services
- Management of the CERN pre-production site, PPS coordination activity, PPS/certification coordination activity
- Installation and configuration of a preview testbed with CREAM-CE, WMS gLite 3.1 + ICE, CREAM-CLI, CREAM-WN
- Monitoring of the grid services
- Setup and administration of a certification testbed

TSA1.2: Middleware deployment and support

- Tools development for the management of the INFN-GRID release
- Analysis and test of solutions for the virtualization of services
- Virtualized environment deployment for production farms
- Development of stress tests for SRM 2.2
- Bug fixing for the INFN-GRID m/w release
- Migration to CASTOR2 for ATLAS, CMS ,ALICE and LHCb

TSA1.2.1: Coordination and support for middleware deployment

- Preparation of INFN-GRID 3.0.0 release based on gLite 3.0
- Certification of the INFN-GRID releases
- Support for the INFN-GRID middleware release deployment
- Test of the gLite middleware
- shell scripts development for the customization, test and deployment of the middleware release
- Quattor management for the Tier-1
- Definition of a migration plan from SRM 1 to SRM 2
- Preparation of updates of the INFN-GRID m/w release according to the gLite updates
- Coordination of the deployment of the INFN-GRID release updates
- Reliability tests for disk based Storage Resource Manager v2.2
- Data transfer management and testing
- Setup of a virtualized and high availability environment for the pre-production farms
- Collaboration with the SRM developers to test the interoperability of different SRM implementations

TSA1.3.1: 1st line support for operational problems in region

- Participation to the shifts for the monitoring, control and support of the Italian grid resources
- Certification of the Italian grid sites
- Support for the operational problems in the Italian ROC
- Network tuning for throughput optimization for storage elements
- participation to the service experts group for the production BDII and monitoring systems (rgma, sft, gridview)
- management of the ticketing system and of GGUS/IT-ROC interface

TSA1.3.2: Oversight and management of operational problems

- Management of operational problems in the INFN-GRID infrastructure
- Oversight of operational and management problems related to the interconnection among INFN-GRID and regional grids
- Preparation of the grid infrastructure for SC4
- Monitoring of servers hosting grid services

TSA1.3.3: Run essential regional grid services

- Grid services administration and maintenance for both EGEE and Italian grids (RB, BDII, WMS, LFC, GridICE, DGAS HLR, FTS, Myproxy, VObox, LB)
- Administration of the production glite WMS
- Setup and monitoring of FTS
- Management of the R-GMA special archivers for the production service
- VOMS server administration for CDF and many regional VOs
- Administration of the site certification infrastructure at CERN ROC
- Administration of the SFT facility for gLiteCEs in the production grid
- virtualization using xen tool of some services of the preview testbed

TSA1.3.4: Weekly operator on duty support

- Participation to the COD shifts
- Participation to the IT-ROC operator-on-duty shifts

TSA1.3.5: Grid services for infrastructure or VOs

- administration, configuration, customization of grid services for the production infrastructure
- improvement and support of the GridICE Monitoring tool
- functionality and stress tests of the SRM server based on parallel file system (GPFS) at Tier-1
- Operation and support of CASTOR-2 SE at CNAF
- Development of new state management mechanism for Quattor's CDB.
- Installation of the new production machine for core Quattor services at CERN-CC
- Storage Accounting problems analysis
- Proposal for modification of Glue Schema for Storage resource (version 1.3)
- SRM version 2.2 implementation for WLCG.

TSA1.4.1: Grid incident response coord in region

- coordination of grid security and incident response at the IT-ROC
- Security Service Challenges at IT-ROC

TSA1.5: VO, application, and user support

- Support to the ATLAS, CMS and LHCb VOs
- Oversight and support for the CMS activities
- Support for the bioinformatics VO users to use the grid

TSA1.5.2: Call centre, helpdesk for ROC

- Participation to the IT-ROC shifts
- Support for the installation and configuration of the resources
- Sites certification
- Tracking of open tickets
- Management of the ticketing system portal
- User support
- Integration of the IT-ROC ticketing system with GGUS
- Documentation for the IT-ROC helpdesk
- Refactoring of support system components

TSA1.5.3: VO support, integration support

- Support for the ATLAS, CMS and LHCb VOs activities on the production grid
- Support for the Service Challenges
- Integration of the Bioinformatics applications in the production and pre-production grids
- Participation to the ATLAS EGEE-LCG Task Force
- Development and maintenance of monitoring and administration tools for the experiments
- Support to ATLAS for the use of the new WMS
- Support for CSA06 on the grid infrastructure

TSA1.5.4: User training in region

- Organization of tutorials for users at various sites
- Preparation of a tutorial for grid users that is scheduled at the beginning of June in bologna

TSA1.5.5: Site admin training in region

- Preparation of a tutorial for grid users that is scheduled at the beginning of June in bologna

TSA1.6.2: Accounting coordination in region

- Testing and deployment of the DGAS accounting system on the Italian production grid
- Support for HLR installation on Italian sites
- DGAS monitoring activity on Italian sites
- Installation, configuration and management of a second level HLR
- Support for the accounting problems
- Validation of the DGAS accounting data
- Integrity check of the DGAS sensors on the CEs and of the HLR services

TSA1.7.1: National and regional grid project coordination

- coordination of the SA1 and INFN-GRID activities at the italian ROC
- Coordination with the LIBI national project
- Coordination of the SCOPE (PON) activities and integration in the national Grid infrastructure
- coordination of the operations for the production grid

TSA1.8.1: ROC management of resources/SLAs

- Definition of a MoU proposal for IT-ROC
- VOMS server administration

TSA1.9.1: ROC representation in coordination

- Participation to the ROC managers meetings and phone conferences

TSA1.A.2: Activity Coordination (Internal meeting, Activity workshop, cross activity meeting)

- Participation to workshops (WLCG, INFN-GRID@Padova, INFN T1+T2@Bologna, EGEE-OSG-WLCG Joint Operation, FTS@SARA and EUIndia@Mumbai)
- Participation to the ROC managers phone conferences and ARM meetings
- Participation to the All Activity Meetings
- SA1-italy phone conferences and meeting
- Participation to SC4 meetings
- Participation to COD meetings
- Participation to the weekly Operations meetings
- Participation to the ESC meetings
- GridICE meetings
- High Availability meetings
- Participation to the GDB meetings
- Participation to LHCOPN meeting
- Participation to the PPS meetings
- Participation to ATLAS and CMS phone conferences

TSA1.A.3: EGEE conferences (preparation & attendance)

- Participation to EGEE06 conference (Geneva)

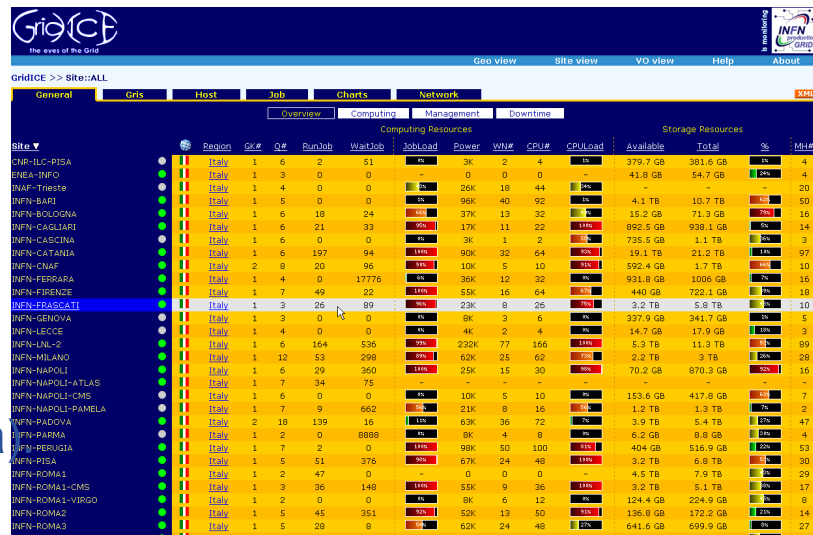
TSA1.A.7: Dissemination (others related conferences, press,)

- Participation to EGEE Industry Day, 26 - 27 October 2006 (Catania)
- Participation to CYCLOPS Open Conference
- Paper for CGW'06
- SC06 Booth material preparation and participation to the conference
- Preparation of 2 abstracts for CHEP07

TSA1.A.10: Partner related tasks (administration, timesheets)

- AFC meeting preparation, attendance and follow up
- Timesheet validation
- Meeting with the INFN EGEE II auditor
- Coordination of the INFN and Italian federation administrative matters
- Solving several problems connected with the timesheet collection in INFN and across the Italian federation
- Document preparation for personnel hiring and unfunded personnel management
- PMB meeting participation

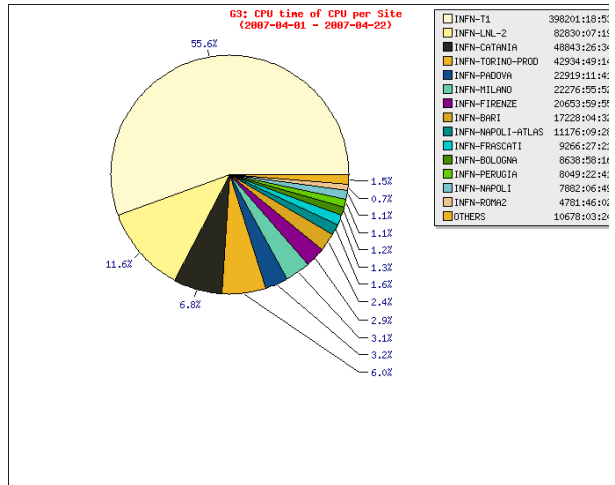
- More than 35 INFN sites in production
- INFN-GRID release
- Monitoring tools (GridICE for both Italian and EGEE resources, GSTAT replica, SAM Admin replica)
- Participation to PPS
- Preview and SA3 testbeds
- Participation to COD and TPM
- HA (High Availability) group for HA grid solutions
- Task force among ROC staff, MW developers and VO staff to address problems and define topologies



CNR-ILC-PISA	OK	ENEA-INFO	OK	ESA-ESRIN	OK	INFN-TRIESTE	OK	INFN-BARI	OK
INFN-BOLOGNA	OK	INFN-CAGLIARI	OK	INFN-CATANIA	OK	INFN-CNAF	OK	INFN-FERRARA	OK
INFN-FIRENZE	OK	INFN-FRASCATI	OK	INFN-GENOVA	OK	INFN-LNL-2	OK	INFN-MILANO	OK
INFN-NAPOLI	OK	INFN-NAPOLI-ATLAS	OK	INFN-NAPOLI-CMS	OK	INFN-NAPOLI-PAMELA	OK	INFN-PADOVA	OK
INFN-PARMA	OK	INFN-PERUGIA	OK	INFN-PISA	OK	INFN-ROMA1	OK	INFN-ROMA1-CMS	OK
INFN-ROMA1-VIRGO	OK	INFN-ROMA2	OK	INFN-ROMA3	OK	INFN-T1	OK	INFN-TORINO	OK
INFN-TRIESTE	OK	INFN-BARI	OK	INFN-PISA	OK	INFN-TRIESTE	OK	INFN-TORINO	OK
INFN-NAPOLI-ATLAS	OK	INFN-PERUGIA	OK	INFN-PISA	OK	INFN-ROMA1	OK	INFN-ROMA1-CMS	OK

No	Site Reports	Grids Host	hnode	cernse	oserr	sanity	sexr	sercrntx	version	slclust	totalCPU	freecPU	runJob	waitJob	se4vail	setused	m
1	ESA-ESRIN	progrd01.esrin.esa.int	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	12	10	2	0	0.84	0	12
2	CNR-ILC-PISA	gridice.ilc.cnr.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	4	2	2	8	0.36	0.00	4
3	ENEA-INFO	egoe.frascati.enea.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	12	10	0	0	0.02	0.01	14
4	INFN-TRIESTE	grid001.oat.ts.astro.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	40	24	0	0	0.25	1.19	42
5	INFN-BARI	grid02.ba.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	80	7	73	140	0.53	0.74	80
6	INFN-BOLOGNA	bogrid05.bo.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	30	14	16	13	0.01	0.05	32
7	INFN-CAGLIARI	grid002.ca.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	28	15	5	330	0.86	0.04	32
8	INFN-CATANIA	grid012.ct.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	670	507	56	31	19.25	2.79	68
9	INFN-CNAF	grid01-ce-001.cna.infn.it	OK	note	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	10	0	9	16	0.51	1.16	10
10	INFN-FERRARA	grid01.fe.infn.it	OK	OK	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	44	43	3	6	0.90	0.08	48
11	INFN-FIRENZE	grid001.fi.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	66	0	65	108	0.42	0.28	68
12	INFN-FRASCATI	atlasce-1nf.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	30	0	30	2197	1.97	4.08	30
13	INFN-GENOVA	grid01.ge.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	6	5	1	5	0.32	0.00	6
14	INFN-LNL-2	t2-ce-02.lnl.infn.it	+	+	OK	OK	OK	OK	GLITE-3.0.0	Scientific Linux 3.0.4	782	31	191	15	38.60	6.79	79

- DGAS Accounting system deployed on the italian production grid
- WIKI PAGES with the relevant documentation



EGEE SA1 Italy Wiki pages

Welcome to the Wiki pages for EGEE SA1 Italy team
The follow projects are currently documented as wiki

LCG Testbeds

- [Certification Testbed](#)
- [LCG 2.7.0 Testbed](#)

LCG Farm

- [Site Installation](#)

Ticketing system

- [Web tools](#)
- [xhelp features to-do list](#) (In Italian)

High availability group activities

Experiences

- [Service virtualization](#)
- [Service emulation](#)
- [Monitoring virtual machines](#)
- [Cluster deployment platform](#)
- [Meeting20061003](#)

[view the whole page](#)

INFNGRID DASHBOARD

- [GOCDB integration](#)
- [INFNGRID Services check](#)
- [INFNGRID Site check](#)
- [Calendar system](#)

SECURITY

- [Security Service Challenge](#) (In Italian)
- [Security Service Challenge 2](#) (In Italian)
- [Security Coordination](#) 

INFNGRID Release

- [INFNGRID Site status](#)
- [INFNGRID Updates](#) 

Table of Contents

- EGEE SA1 Italy Wiki pages
- LCG Testbeds
- LCG Farm
- Ticketing system
- High availability group activities
- INFNGRID DASHBOARD
- SECURITY
- INFNGRID Release
- INFNGRID Devel

IT-ROC SUPPORT system

- IT-ROC support system is based on Xoops, a CMS (Content Management System) coded in PHP
- A whole portal with a lot of facilities is available both for end-users and grid farm administrators
- The main component of this suite, Xhelp, implements a full-optional helpdesk and trouble ticketing system (<https://grid-it.cnaf.infn.it/checklist>)
- IT-ROC helpdesk is Web-service compliant with GGUS (Global Grid User Support) both on incoming and outgoing interface



The screenshot displays the IT-ROC support system interface. At the top, there are logos for eGEE, INFN production GRID, eGEE SAI ITALY, and Grid (C) the eyes of the Grid. Below the logos, there is a navigation bar with links like Summary, Log Ticket, My Profile, Knowledge base, View All Tickets, and Search. A search bar contains the text 'tkt unresolved' and buttons for 'Run' and 'Go!'. The main content area shows a table of tickets with columns for ID, GGUS-ID, Priority, Subject, Status, Department, Logged By, Log Time, and Owner. The table lists several tickets, including one with ID 16312 and another with ID 16361. A sidebar on the left contains a 'User Menu' with links like Home Page, View Account, Inbox, Logout, and Administration Menu. Below the sidebar, there are sections for 'checklists', 'Production BDII', 'Sites List', 'Action List', 'CMT Checklist', 'CMT Shifts Calendar', 'Tier1 Shifts Calendar', and 'latest news'. The 'latest news' section mentions a new CA available and a new CA rpm available.

Central Management Team (CMT) shifts

- 21 supporters (19 from INFN) participate to a control activity (2 shifts per day, Monday to Friday, 2 people per shift) and compile a report
- the main activities are:
 - Check the status of grid resources and services
 - problem warning and follow-up
 - site certification during the deployment phases

CMT-Shifts-Calendar

Search
My Profile
tkl unresolved
Run
Go!

Checklists
Production BDII
Sites List
Action List
CMT Checklist
CMT Shifts Calendar
Tier1 Shifts Calendar

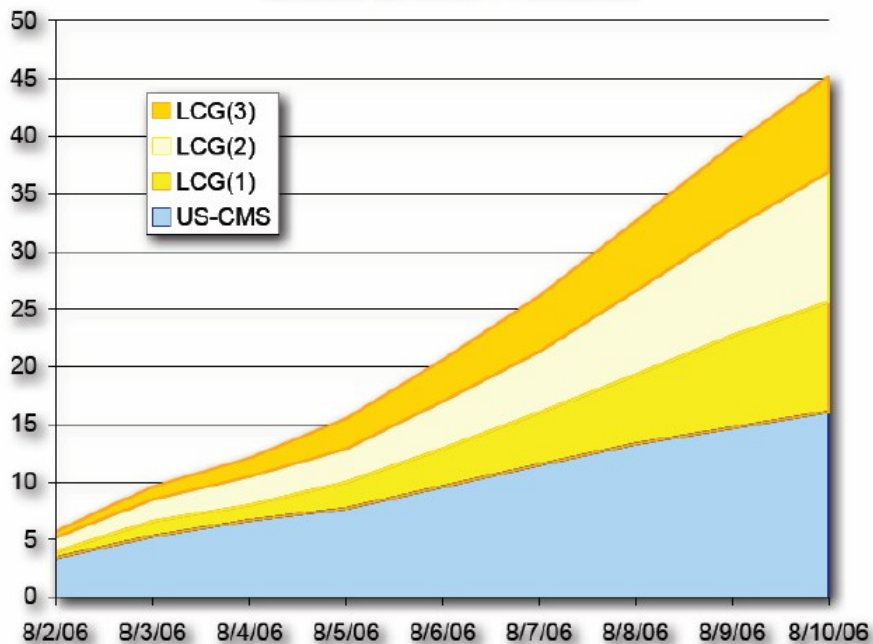
Who's Online
3 user(s) are online
(1 user(s) are browsing Forms)
Members: 3
Guests: 0
apaolini, sdallafina, dcesini, more...

Current View: Weeklyview

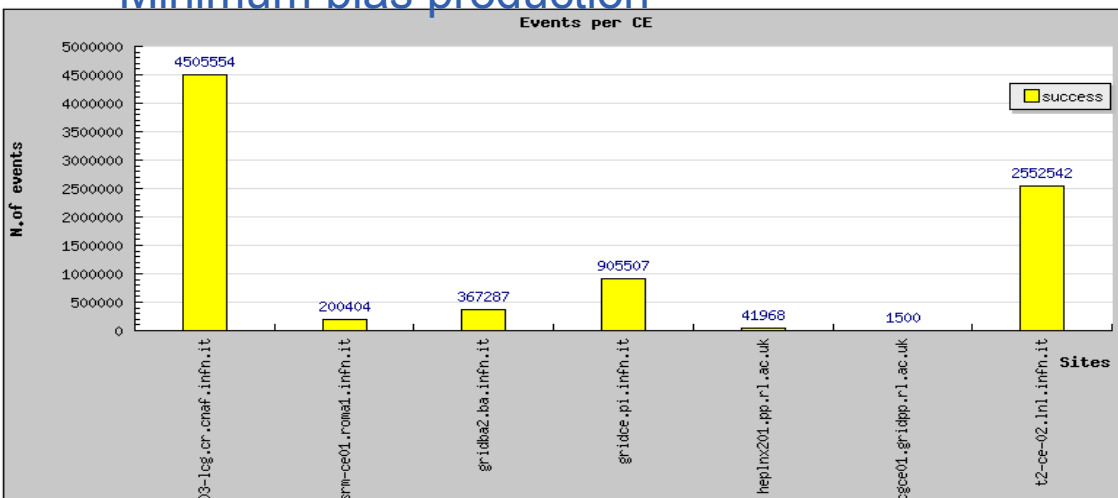
Add one entry
Add multiple entries
Change columns
Calculations
Advanced search
Export data
Import Data

2006-05-22	P. Veronesi	M. Verlati	M. Selmi L. Magnoni	R. Brunetti	M. Da Cruz alex	G. Donvito G. Cuscela	A. Paolini S. Dal Pra	A. Cavalli A. Pagano	S. Dalla Fina
Week (Monday)	Monday morning (08:30 - 14:00)	Monday afternoon (14:00 - 19:30)	Tuesday morning (08:30 - 14:00)	Tuesday afternoon (14:00 - 19:30)	Wednesday morning (08:30 - 14:00)	Wednesday afternoon (14:00 - 19:30)	Thursday morning (08:00 - 14:00)	Thursday afternoon (14:00 - 19:30)	Friday morning (08:30 - 14:00)
2006-05-15	A. Paolini	M. Selmi	M. Da Cruz S. Dal Pra	D. Cesini	F. Nebiolo	M. Verlati	P. Veronesi R. Zappi	S. Fantinel fregoretti	S. Dalla Fina F. Fanzago
2006-05-08	P. Veronesi	D. Cesini	A. Cavalli A. Pagano	M. Verlati G. Patania	S. Dal Pra A. Paolini	G. Cuscela G. Donvito	R. Brunetti L. Vaccarossa	F. Nebiolo	
2006-05-01	festa dei lavoratori	festa dei lavoratori	P. Veronesi	S. Fantinel	A. Pagano A. Cavalli	R. Brunetti	A. Paolini S. Dal Pra	M. Verlati D. Cesini	S. Dalla Fina M. Da Cruz

Million Events Produced

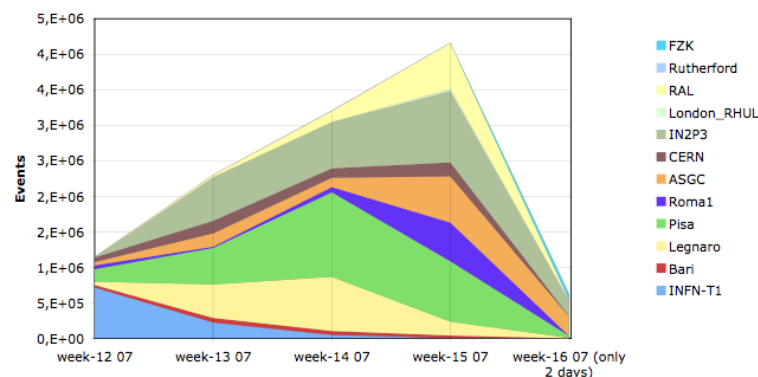


Minimum bias production

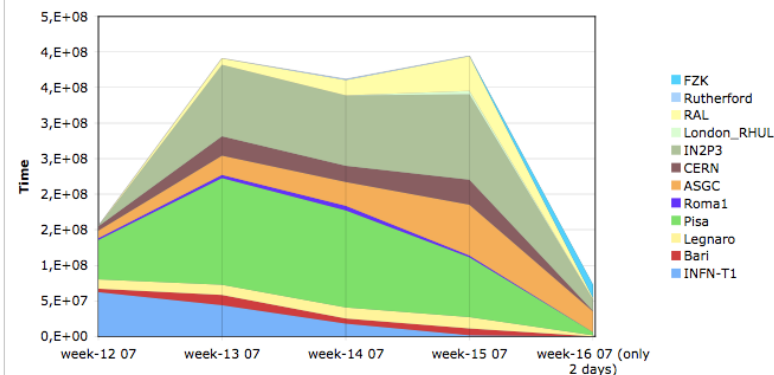


- **CMS CSA06 successfully completed**
 - The CMS LCG3 production team mainly used Italian resources
- **Production is continuing in 2007**

LCG3 - MC Production
Total Events



LCG3 - MC Production
CPU Time



- **Bioinformatics applications ported on GRID**
 - in conjunction with the **LIBI** national project and the **BioinfoGRID** EU project
 - **FAF** (~55 CPU-years)
 - Functional Analogous Finder: find genes with similar functionalities
 - **MultiBLAST** on Gilda
 - an easy way to run BLAST multiple queries in a Grid infrastructure.
 - **Rosetta**
 - a protein structure prediction method used to predict the three-dimensional structure of the “never born proteins”.
 - **CSTGrid** (~55 CPU-years)
 - a whole genome comparison tool for the identification of coding and non-coding conserved sequences.
 - **ASPic**
 - Alternative Splicing Prediction on EGEE infrastructure
 - **PAML and MrBayes** application on the EGEE infrastructure
 - **Massively evolutionary task by BLAST on grid.** (~1 CPU-year)
 - **DNAfan**
 - a software tool for automated extraction and analysis of user-defined sequence regions

Concerns, problems, issues

- **Operations:**
 - All the middleware components (e.g. SL4 WNs) should be deployed on the production grid in the standard way (with the appropriate rpms and yaim scripts) otherwise support is unfeasible
- **PPT:**
 - The working time reported in TS in some cases does not correspond to the working time registered by INFN
 - In part this is due to the fact that the working time registered by INFN for a given month is only available around day 15 of the following month
 - If we could delay the submission of the time sheet up to the middle of the month we could get a more precise correspondence

Personnel:

- We had to submit a request for a contract amendment
- INFN at the beginning of EGEE II changed its recruitment policy
 - We had an increase of the costs of the contracts
 - However we could maintain the great part of the EGEE staff
 - *No initial training was necessary*
 - *So, no consequences on the tasks assigned to INFN*
- In EGEE II
 - Almost all personnel is INFN temporary staff
 - *Working time is registered and controlled*
 - We have only few cases of CoCoCo or art 2222 (COordinated and COntinuative COllaborations) (autonomous workers)
 - *This is the suggested contract to use for MIUR projects*
 - *But we do not have the possibility to control the working time*
 - INFN solution: working time is certified by the INFN activity leader
 - Some concerns because an EU Directorate has requested INFN for an yearly TS signed both by the worker and the Institute
 - *INFN has some difficulties in co-signing a TS from which it may appear that the working time of a CoCoCo is controlled.*

- **EGEE II extension**

- We managed to hire all the personnel at the beginning of the project (1 April 2006) consuming all the available budget and also a part of the overhead
- The contracts were suspended for approximately 10 days at the beginning of June because the contract was not signed at the end of May
- We do not expect to have budget for a 1 or 2 months extension of the project.
- At the same time we can not guarantee that we can hire the personnel also in absence of the contract
 - Until 2005 for INFN it was possible to hire the personnel on its own budget and then move to the Project budget when the contract had been signed.
 - The last two budget laws did not allow this mechanism
 - For next year we do not know yet

Successes:

- they have already been described in the presentation

Concerns:

- Very little activity about SLAs
- Very small progress in setting up the JRU and NGI

Problems:

- Response to security problems is not satisfactory; in addition to ROC and site managers often other people not directly working on the grid need to be involved and this is not always trivial
- Difficulties in managing sites too small since the commitment is not always clear

The Italian grid infrastructure, one of the biggest in the Project, and with many services (general and VO-oriented), is operational and extensively used by many VOs (not only LHC!)

Opportunities for change:

- Undercommitment: a MoU with a clear definition of the commitment (computing and storage resources, man power for the administration of the site and for support) has to be signed before joining the grid.
- SLAs: some work has just started according to the SEE-ROC proposal
- SLAs will be monitored by the ROC to verify the sites commitment